

THE 1961 ZONING
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City-Wide Considerations

One of the fundamental approaches in the preparation of the Comprehensive Amendment of the Zoning Resolution was the determination of the amount of land presently in use and needed in the future for the three inter-related components of housing, commerce and industry. Available statistics, data from surveys on existing and emergent trends and developments, interviews with experts and practitioners and careful analysis led to the conclusion that future land demand would be determined more by internal shifts of people and jobs than by appreciable changes in total population or employment. A key implication of this conclusion of small overall change but larger and divergent changes in the components was that full and sensitive attention would have to be given to probable changes in the use of already improved land as a result of public and private action.

The City's population was projected at 8.3 million by 1975, a modest increase over the 7.8 million enumerated in 1960. The zoning envelope, consisting of the dual elements of the amount of land designated for residential use and appropriate and desirable density levels throughout the various communities, would permit a residential population of 10.9 million or an increase of 30 percent above the projected figure.

The single most important objective of residential recommendations was to effectuate more evenly distributed residential densities without impinging upon individual freedom of locational choices. This objective resulted from the conclusion that overbuilding in some parts of the City was only at the expense of the sterilization of other parts.

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TABLE I

POPULATION, 1960; ANTICIPATED, 1975;
AND ZONED CAPACITY

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|----------------|------------------|-----------|-----------|-----------|-----------|----------|
| 1960 Census | | | | | | |
| Estimated 1975 | 8,340,000 | 1,725,000 | 1,475,000 | 2,625,000 | 2,200,000 | 315,000 |
| Zoned Capacity | 10,940,000 | 1,991,000 | 1,773,000 | 3,414,000 | 2,900,000 | 862,000 |

Residential Land Demand

The zoning study anticipated that the housing inventory would increase at a rate almost double that of population itself, 11 percent as compared to 6 percent, largely because of the trend toward smaller household size and a moderate rise in the vacancy rate. A net increase of 279,000 housing units was estimated for 1975 over the 2,576,000 units in existence in 1957. Annual average construction of 25,000 new units was predicted for the period 1957 to 1975, equal to the annual average between 1952 and 1957 but about 1/5 lower than the 1946-1951 post-war peak.

TABLE II

ANTICIPATED NEW YORK CITY
HOUSING INVENTORY, 1975,
AND ZONED CAPACITY (DWELLING UNITS)

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|-----------------|------------------|-----------|---------|-----------|---------|----------|
| Inventory, 1957 | 2,576,000 | 639,000 | 458,000 | 842,000 | 575,000 | 62,000 |
| Estimated, 1975 | 2,854,000 | 607,000 | 498,000 | 900,000 | 746,000 | 103,000 |
| Zoned Capacity | 3,595,000 | 710,000 | 577,000 | 1,129,000 | 930,000 | 249,000 |

The importance of governmental housing policies and their unpredictability were emphasized as factors clouding the accuracy of forecasting. Rising construction costs, shortages of vacant sites and the curtailment of some governmental programs were indicated as factors likely to keep construction below peak post-war levels. Demolitions, however, were expected to be high, at an estimated 14,000 annual average, because of the increasing reliance on already developed land as sites for private and public improvements

The estimate of the vacancy rate was increased arbitrarily because of the abnormal situation prevailing in New York City prior to 1957 when the national vacancy rate more than doubled. While New York's vacancy rate was expected to remain below the national average because of continuing in-migration and the cost differential between new and old housing, some rise was predicted. (The recent 1966 study by Dr. Rapkin for the Rent and Rehabilitation Administration has substantiated these estimates.)

With respect to the reduction in average household size, the zoning study cited the large increases in one- and two-person households resulting from an aging population and the selective urban migration process which makes the metropolitan core more attractive for childless individuals and couples. These elements were considered sufficient to offset the rising birth rate, increases in the number of children and the in-migration of large household minority groups.

A comprehensive survey of all post-war multiple dwelling construction in the City was undertaken to determine all physical characteristics and related economic costs. This information together with the projected housing inventory resulted in the quantification of residential land requirements for 1975 as being some 12,000 acres greater than in use in 1957.



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The new zoning, however, provided for 20,000 residential acres more than in use in 1957. In addition, some 800 acres of land in non-residential districts were expected to remain in residential use for some time and about 200,000 people would be housed in hotel, institutional and other accommodations not classified as dwelling units.

TABLE III

ANTICIPATED RESIDENTIAL LAND
REQUIREMENTS IN ACRES

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|--|------------------|-----------|-------|----------|--------|----------|
| In Residential Use, 1956 ^{a/} | 46,766 | 3,331 | 5,468 | 12,882 | 20,238 | 4,847 |
| 1957-75 Need for New Residential Use | 11,895 | 200 | 1,234 | 1,442 | 4,019 | 5,000 |
| Total Requirements | 58,661 | 3,531 | 6,702 | 14,324 | 24,257 | 9,847 |
| Proposed Resi- dential Zoning ^{b/} | 66,515 | 3,371 | 7,277 | 15,596 | 25,273 | 14,998 |

^{a/} Including residential use in non-residential districts.

^{b/} Exclusive of residential land requirements to be met by mixed use in commercial zone, such as 400 to 500 acres in Manhattan.



Industrial Land Demands

The rezoning study indicated a projected increase of future employment based upon post-war trends of some 127,000 jobs by 1975 or about 3 1/2 percent. It was expected however, that geographical and occupational changes would be more extreme and have greater significance on land demand.

The predictions were that manufacturing employment was likely to continue to decline because of continuation of shifts toward a higher proportion of non-production workers and a persistent out-migration to the suburbs of certain types of manufacturing activities. Similarly, retail employment was expected to decline while service employment would rise. The City's eminence as a headquarters center was forecast as being strengthened, with rapid growth taking place in finance, insurance, wholesale trade, government services, business services and education.

While total employment within the City was predicted to be fairly stable, appreciable increases were predicted for Queens and Richmond. Within each borough, however, significant changes within individual categories were projected.

TABLE IV

EMPLOYMENT, 1955, AND PROJECTED, 1975

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|--|------------------|-----------|-------|----------|--------|----------|
| Total, 1955 | 3,533 | 2,348 | 203 | 600 | 321 | 31 |
| Total projected, 1975 | 3,660 | 2,367 | 219 | 606 | 419 | 49 |
| Manufacturing, 1955 | 971 | 545 | 53 | 236 | 127 | 10 |
| 1975 | 925 | 448 | 66 | 234 | 162 | 16 |
| Retail Trade, 1955 | 447 | 250 | 39 | 90 | 62 | 6 |
| 1975 | 407 | 216 | 34 | 79 | 69 | 9 |
| Wholesale Trade, 1955 | 371 | 290 | 15 | 37 | 29 | 1 |
| 1975 | 404 | 291 | 21 | 45 | 45 | 2 |
| Transportation, Communication, and Public Utilities, 1955 | 325 | 254 | 15 | 28 | 26 | 2 |
| 1975 | 290 | 227 | 13 | 24 | 22 | 3 |
| Finance, Insurance and Real Estate, 1955 | 355 | 319 | 6 | 20 | 10 | 1 |
| 1975 | 455 | 409 | 8 | 25 | 12 | 1 |
| Services, 1955 | 567 | 417 | 32 | 76 | 40 | 3 |
| 1975 | 634 | 476 | 32 | 75 | 47 | 5 |
| Government, 1955 | 390 | 218 | 31 | 93 | 39 | 8 |
| 1975 | 442 | 247 | 35 | 105 | 43 | 12 |
| Contract Construction, 1955 | 107 | 55 | 12 | 20 | 19 | 1 |
| 1975 | 103 | 53 | 11 | 19 | 18 | 1 |

A detailed investigation of all post-war factory construction clearly indicated an overwhelming trend toward one-story horizontal plants requiring more land per worker and necessitating vacant or nearly vacant land in outlying areas. The basic planning principle emerging from these findings was that industry would have to be allocated a fair share of open land for replacement, expansion and relocation of existing plants and the establishment of new activities.

TABLE V

CHARACTERISTICS OF NEW
INDUSTRIAL CONSTRUCTION

1947 - 1956

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|--|------------------|-----------|-------|----------|--------|-----------|
| Floor space built, 1947-56, acres | 567 | 32 | 71 | 181 | 283 | <u>a/</u> |
| Land developed, acres | 737 | 12 | 86 | 234 | 405 | <u>a/</u> |
| Floor area ratio | 77 | 260 | 83 | 77 | 70 | <u>a/</u> |
| Employees, 1957 | 67,100 | 3,000 | 7,350 | 21,550 | 35,200 | <u>a/</u> |
| Floor space per worker, square feet | 388 | 467 | 422 | 367 | 349 | <u>a/</u> |
| Employment per acre | 91 | 244 | 83 | 92 | 87 | <u>a/</u> |

a/
Insufficient data

Studies of post-war industrial construction showed the bulk of such construction in Queens and Brooklyn with negligible amounts in Manhattan and Richmond. The trend was clearly toward one-story plants with more land and floor space per worker than in older plants. The floor area ratios were considerably below 1.0 except for Manhattan indicating industry's awareness and acceptance of modern standards of good siting, room for expansion and provision of parking and off-street loading facilities. Further increases in the amount of land per worker were expected as parking demands grew.

The evaluation of construction and floor space trends and the anticipated future industrial employment were translated into a 1975 estimated need of 2,000 acres of industrial land above that in use in 1956. Almost 500 acres were anticipated to become available through redevelopment. The assemblage of vacant or predominantly vacant blighted land and the recapture of acreage through the closing of unnecessary and excessive streets were advanced as two techniques to assist in the provision of suitable industrial sites.

Table VI indicates that almost 6,000 more acres were proposed for industrial zoning than in use in 1956, or 4,000 acres more than needed by 1975.

TABLE VI

ANTICIPATED INDUSTRIAL
LAND REQUIREMENTS

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|--|------------------|-----------|-------|----------|--------|----------|
| In Industrial Use, 1956 ^{a/} | 11,810 | 1,388 | 1,696 | 3,182 | 3,483 | 2,061 |
| 1957-75 need for new Industrial Use | 2,030 | 30 | 200 | 500 | 1,000 | 300 |
| Available from Redeveloped Land | 480 | 16 | 33 | 320 | 111 | - |
| Total Requirements | 13,192 | 1,234 | 1,863 | 3,362 | 4,372 | 2,361 |
| Proposed Industrial Zoning | 17,616 | 1,050 | 2,389 | 4,267 | 4,556 | 5,354 |
| Available in 1975 ^{b/} / | 19,737 | 1,419 | 2,833 | 4,851 | 5,242 | 5,392 |

^{a/} Including industrial use in proposed non-industrial districts. In Manhattan, 168 of these acres are estimated to be in non-industrial use by 1975.

^{b/} Including industrial uses estimated to remain in proposed non-industrial districts.

The Comprehensive Zoning Amendment is still the best reflection of the concern and sensitivity of the City Administration toward land and a suitable environment for industry. Various manufacturing bulk districts strategically located with respect to transportation were mapped. Included in many districts was a large amount of vacant land for expansion of existing firms and for new construction. These districts were based upon careful analysis of industrial and manufacturing space needs derived from a building-by-building review of all new construction during the period from 1946 through 1957.

Estimated City-wide land requirements and allocations under the zoning plan are as follows:

| | <u>Acres</u> | |
|--|--------------|--------|
| In industrial use, 1956 | 11,810 | |
| 1957-75 needs for new industrial uses | 2,030 | |
| Available from redeveloped land | <u>480</u> | |
| Total requirements | | 13,192 |
| Total proposed industrial zoning | 17,616 | |
| Total vacant land in M districts | (7,520) | |
| Industrial uses estimated to remain in non-industrial districts | <u>2,121</u> | |
| Total land for industry | | 19,737 |

The new zoning regulations were designed to provide the means for achieving a balance in the mapping of the districts between the need for good standards to govern new construction and rebuilding on the one hand, and the need for allowing a reasonable degree of flexibility for the alteration of existing buildings on the other.

In addition, the zoning resolution provides a new criterion, that of performance standards, for judging industrial activity and consequently the areas mapped for specific uses. Any industrial activity is permitted in any of the three basic manufacturing districts provided it meets the appropriate performance standards of the district involved. In that way compatability and more desirable environmental qualities can be achieved.

One outgrowth of the zoning studies was the recognition of the need for an industrial park program. Three sites, in Flatlands, College Point and Staten Island's West Shore were selected on the basis of land use criteria and locational advantage, including significant amounts of vacant City-owned land and the need to act rapidly to forestall incipient residential development. Because of critical legal, fiscal and administrative problems, however, only the Flatlands Industrial Park site has been acquired by the City although feasibility studies on College Point and West Shore strongly recommend industrial development.

A second area of concern emerging from the zoning studies was the rate at which industrial and loft floor space was being lost to urban renewal projects and other public improvements. A detailed and critical analysis by the City Planning Commission of the twelve-block South Houston Street industrial area in Manhattan, which was actively pushed for housing because no residential relocation problem existed, clearly emphasized the critical importance of these industrial activities in providing almost 13,000 jobs for minority groups. As a result of the strong recommendation that these jobs be preserved, no renewal action has been taken to date.

Instead a study was undertaken on behalf of the City Planning Commission by A.D. Little, Inc. to devise new fiscal, legal and administrative approaches toward industrial development. The recommendations embodied in their report are only now in the process of being implemented in varying degrees.

Commercial activities, ranging from local convenience uses to the prime office structures of the Central Business District, follow housing and industry as the next major land demand.

The zoning studies revealed that the Manhattan Central Business district constituted only 3 percent of the City's area but housed 57 percent of the working population, 55 percent of commercial and industrial floor space, 93 percent of space in office buildings and 91 percent of loft space.

Total employment in the CBD was expected to remain constant with an increase in office and service functions offset by decreases in manufacturing and warehousing. At the time of the rezoning some 28 million square feet of office space had been built and an equivalent amount was then in progress, largely in East Midtown and Wall Street. The heavy office space demand resulted from an expansion of business services, an increase in the proportion of administrative and office workers, an increase in headquarters functions locating in New York and a tendency to house office workers in office buildings rather than other space.

The basic policy principle enunciated in the mapping of the CBD was that little additional land was necessary to provide for anticipated and projected increases in office floor space and that the main problem was the tendency to concentrate in the already congested sections. CBD mapping sought therefore to constrict the F.A.R. 15 areas to those sections where such construction had already materialized and to buffer the core with F.A.R. 10 districts. Inherent in this approach was the awareness that within the F.A.R. 15 districts considerable opportunity existed for land assemblage and redevelopment. In addition, it was felt that there would be an appreciable

decrease in the amount of land needed for retailing, wholesaling and storage, and that this resource could be used for additional offices, housing and critically needed parks and playgrounds.

Since the effective date of the Zoning Resolution, a number of changes have been made extending the F.A.R. 15 districts beyond the original bounds. Most, if not all of these, have been in response to special situations which, while supposedly judged on their merits, have been diametrically opposite the avowed planning policies previously enunciated by the City Planning Commission.

In arriving at standards for local commercial land requirements, the major consideration was the significant change in retail trading patterns, particularly with the advent of the supermarket and the shopping center. The impact of these technological changes has been to increase immensely the retail trade area. The result has been increasing store vacancies in traditional commercial strips and a dramatic excess in the amount of land, particularly in street frontage, necessary for local shopping.

In 1957 detailed studies indicated 18,820 net acres zoned for retail and business activities throughout the City but with only 5,792 acres actually in commercial use. Borough figures were equally impressive in demonstrating excess zoning. The new zoning sought to establish more realistic relationships between capacity and demand through a variety of studies in depth. Some 10,698 acres were proposed for commercial purposes compared to the 5,792 actually in use, a provision of 4,906 net acres

available for expansion. The indicated requirements were for some 1,750,000 feet of commercially zoned frontage; the provision was for 2,471,000 feet.

Changes since the passage of the Zoning Resolution have both cut back and increased commercial zoning with the balance going toward increases in strip zoning, generally in response to miniscule requests which have sometimes been the fulcrum for overly ambitious changes.

Land allocations are summarized in the following tables.

TABLE VII

FUTURE DISTRIBUTION OF LAND
BY MAJOR CATEGORIES

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|--|------------------|-----------|--------|----------|--------|----------|
| Proposed Zoning | 94,840 | 6,780 | 11,200 | 23,240 | 32,150 | 21,470 |
| Residential | 66,520 | 3,370 | 7,280 | 15,600 | 25,270 | 15,000 |
| Industrial | 17,620 | 1,050 | 2,390 | 4,270 | 4,560 | 5,350 |
| Commercial | 10,700 | 2,360 | 1,530 | 3,370 | 2,320 | 1,120 |
| Airports, major, 1956 | 6,450 | - | - | 1,090 | 5,360 | - |
| Parks and recreation, 1956 | 36,000 | 2,530 | 6,430 | 11,250 | 11,680 | 4,110 |
| Institutions and community facilities, 1956 | 12,100 | 1,140 | 2,130 | 2,090 | 4,090 | 2,650 |
| Streets, estimated future | 55,020 | 4,220 | 7,780 | 14,520 | 19,420 | 9,080 |
| Total | 204,410 | 14,670 | 27,540 | 52,190 | 72,700 | 37,310 |

TABLE VIII

P R O P O S E D U S E O F E X I S T I N G V A C A N T L A N D

| | New York City | Manhattan | Bronx | Brooklyn | Queens | Richmond |
|----------------------|------------------|-------------------|-------|----------|--------|----------|
| 1955-56, vacant | 31,020 | 390 ^{a/} | 3,760 | 4,050 | 7,210 | 15,610 |
| Proposed use | | | | | | |
| Residential | 20,960 | 240 | 2,180 | 2,730 | 5,650 | 10,160 |
| Industrial | 7,520 | 20 | 870 | 1,170 | 1,400 | 4,060 |
| Commercial and other | 2,540 | 130 | 710 | 150 | 160 | 1,390 |

^{a/} Primarily scattered vacant parcels and unbuildable land arbitrarily pro-rated to future uses.

QUEENS MAPPING

Astoria

The essential residential character of the Astoria community was recognized except for the manufacturing district at Pot Cove, a Consolidated Edison facility and the burgeoning industrial complex west of LaGuardia Airport. Generally the area was zoned R5 to reflect existing density and sensitivity to expressed fears of public housing except for an R6 band in the southern section. A major reworking of the land use pattern was intended by designating a firm line at 36 Avenue and making a large number of industrial and open activities of marginal quality non-conforming. The area's proximity to the core, the construction of new community facilities, available subway capacity, substantial public and private investment and the noticeable atrophying of the older industrial complex was the basis for use zoning decisions. Proposed bulk was held down because of appreciable vocal community opposition to public housing as well as to high rise structures.

Major development since the effective date has been the construction of new industrial plants during the grace period, and some scattered private housing. Some attempts have been made at land assemblage for Mitchell-Lama purposes, and there has been some preliminary explorations initiated by Dreier Steel as to residential reuse of their waterfront property.

Bayside

The area was generally zoned R2, R3-2, and R4 in recognition of fairly recent one- and two-family housing with some scatteration of garden apartments and row housing. An R5 designation was given to Bay Terrace as a large-scale development which was initiated prior to the effective date of the zoning resolution.

The Sylvania electronics plant was recognized as a prime example of a research and development activity in a park-like setting compatible with low-density residential development. The distance to the core; the lack of mass transit service; the age, condition, quality and type of housing were the basis for the bulk determinations. A new shopping center in Bay Terrace and an older regional facility on Bell Boulevard were recognized as C4. There was some cutting back on spotty local convenience and service shopping.

Since the passage of the zoning resolution, additional construction has proceeded at Bay Terrace in the form of six-story apartment houses and plans have been filed for an extensive parcel east of Bell Boulevard. Considerable one- and two-family construction has virtually exhausted the supply of vacant land. John Golden Park was bequeathed to the City and has been developed. Northern Boulevard remains a problem with strip zoning and development with gas stations, used car lots, and open uses.

College Point

College Point was zoned R1-2 and R2 to reflect the original G and G-1 Districts under the old zoning and R3-2 and R4 on the basis of existing development. The historic industrial district along the East River was recognized as M1 and M2, upgrading performance. The bulk zoning was based on the relative isolation of the area, its separation by physical and arterial barriers, limited access, the inadequacy of prevailing street widths and pattern, the provision for higher bulk in Flushing, and the absence of rapid transit facilities and the inability of the existing

subway terminal at Main Street to handle any additional loads. The southern portion of the area was zoned for the proposed College Point Industrial Park and for existing heavy industries which include storage and equipment yards, a marine transfer station, and an incinerator.

During the past five years most of the interstitial parcels have been built upon in the residential sections, and there are pending several requests for zoning changes to R6 and R7 which would result in a doubling of population if granted and construction undertaken. In the industrially zoned areas there has been some minor expansion. One of the larger complexes has been sold and now houses several activities instead of the original Lily-Tulip operation.

A proposal for a regional park utilizing City-owned land and lands under water was rejected by the Commission despite strong staff support and Park Department approval.

Corona

Four basic residential bulk designations were applied to the Corona-East Elmhurst area - R3-2, R4, R5 and R6. The lower bulks reflect existing conditions while the R6 was applied to a large area to stimulate public and private investment, particularly for Mitchell-Lama housing. A considerable portion of the housing stock is post-war and was built to the standards of the R3 and R4 districts. The R3-2 was applied to a lower middle class Negro community of privately-owned one- and two-family homes in generally good condition. Viable commercial development

was recognized but there was an attempt to cut back on excessive strip commercial zoning on Astoria Boulevard and with considerably less success on Northern Boulevard.

The Bulova plant and some institutional and industrial activities immediately south of LaGuardia Airport were recognized by an M designation.

In general the densities applied reflect the prevailing character of the neighborhood as well as the adverse impact of proximity to the airport.

Since enactment of the Zoning Resolution there have been some miniscule, and in some cases unwarranted, zoning changes in response to special situations. An urban renewal designation has been approved for the area generally east of 94 Street and on both sides of Northern Boulevard but nothing has developed to date as a result. The blighted area at the confluence of Astoria and Northern Boulevard has been proposed to be rezoned to R6 to permit a small 211 (d) (3) building to be constructed. In the private sector, most of the available vacant land has been utilized and the one remaining large tract has been covetously eyed for public housing, a nursing home and conventional housing, all at significantly higher densities than the R3-2 zoning.

Douglaston-Little Neck

On the City line, Douglaston-Little Neck was zoned R1-2 and R2 on the basis of the G and G-1 precedents, and R3-2 to reflect some of the newer single- and two-family housing. The gravel pit was zoned R4 partially as a compromise with the developer and partially in recognition of topographic and economic considerations. An existing electronics

plant was recognized with an M designation despite the adverse affect it has on the surrounding streets because of traffic and parking.

Distance from the core, the absence of mass transit facilities, the character of existing development, the high incidence of car ownership and almost total dependence on the automobile were the basic factors in the decision for low bulk zoning, as were the age and condition of housing.

Strip commercial was cut back along some portions of Northern Boulevard, particularly by making the Kiddie City complex non-conforming.

Flushing

The Flushing area runs the gamut of R1-2, R2, R3-1, R3-2, R4, R5, R6, R7-1, C1, C2, C4, M1 and M3 zoning. The R1-2 and R2 Districts generally conform to the older G and G-1 Districts, while the R6 and R7 designations were applied to the areas in which substantial apartment house development was taking place and which were considered appropriate for higher densities because of proximity to rapid transit, commercial and institutional facilities. The R7-1 and R6 Districts were expanded in some directions to permit further intensive development. Generally the lower density districts reflect the prevailing character, increasing distance from the subway lines and separation by natural barriers and arterials.

The C4-2 District was mapped for the Main Street shopping complex to provide for future expansion toward Northern Boulevard.

An extensive M1-1 District was mapped to reflect existing industry and to serve as a buffer between the commercial and residential areas to the east and the more intensive manufacturing uses to the west.

An M3-1 District was mapped for the Willets Point area because of its relative isolation from the surrounding community and because of its excellent arterial access, and because of the need to provide space for some lower performance industrial activities.

Since 1961, additional multiple dwelling construction has taken place in the areas east of Union Street and south of Roosevelt Avenue. Controversy is still alive over the proposed park mapping of the Willets Point industrial area and over a proposal to extend C4 zoning to an institutional parcel.

Forest Hills

The R7 District was tightly drawn around the area of recent high-rise apartment construction in Forest Hill-Rego Park. Lower densities were assigned to Kew Gardens, the original Forest Hills development and to some of the newer one- and two-family construction areas. Commercial zoning of C1, C2, C4 and C8 reflect existing development.

Some noticeable development has taken place in the past five years, particularly the completion of a considerable number of buildings commenced during the grace period. A new Social Security Administration building, an office building and some additional shopping facilities have also materialized.

Howard Beach

This area was zoned R2 and R3 with a subsequent change of a portion of the area to R5-1 because of the nature and type of low density development. Most of the housing is new. The density designation was based on distance from the core, the lack of rapid transit facilities, the prevalent character of the community, and proximity to the airport.

Since the passage of the zoning resolution most of the remaining vacant land has been built upon for residential use.

Jackson Heights

The core of this community was recognized by a tightly drawn R7 line to recognize existing high bulk development but to constrict further dense development because of the adverse impact of LaGuardia, the prevailing congestion on the existing rapid transit lines, the inadequacy of community facilities and open space. R5 and R6 designations were applied to the remaining sections of the community. Two small C4 Districts were recognized as were the local service and convenience shopping strips along the three major east west streets traversing the community. The R6 and R7 densities were mapped for areas closer to the subway lines and R5 for those areas somewhat less directly served.

Since the area was fairly solidly built up prior to the rezoning effort, there has been little development since that time. One major factor to note has been the extension of some of the runways at LaGuardia and the use of that field for jets, further intensifying the airport's impact.

Jamaica

The Jamaica area was zoned largely for R6 because of the availability of rapid transit facilities, the concentration of viable shopping and the profusion of public and private institutions. The R6 was extended to cover older areas of large single family homes which were being assembled for multiple dwelling construction in order to further encourage this type of development. North of Hillside Avenue the zoning of R5 reflected the character of development, increasing distance from the core of the shopping area and the necessity to buffer the lower density and somewhat exclusive areas to the north.

A C4 designation recognized the regional shopping area and was extended in east, north and westerly directions to provide sufficient depth for expansion and new development. Similarly, a manufacturing district of considerable size was provided surrounding existing rail lines and yards to encourage industrial and office construction.

Kew Gardens Hills - Fresh Meadows

This community was basically recognized as a low-density area with a variety of housing types from single-family detached to the garden apartment and high-rise complex of Fresh Meadows. Most of the housing is of fairly recent vintage and in good condition. The major shopping centers were recognized as was viable strip shopping along major streets.

The R3 designation applied to Fresh Meadows has been changed to R4 to permit construction of a third high-rise building and the R4 for the Pomonok-Elechester complex to R6 to accommodate some vacant acreage. Changes which have taken place otherwise have been minimal.

Laurelton-Rosedale

This community, with a fairly substantial proportion of new single-family homes and a rising Negro middle-class component, was zoned for low density use because of its outlying position and the existing character of development. R2 was applied to the old G1 Districts and R3-2 to the balance of the community. The area adjacent to Kennedy Airport was first proposed as M to preclude residential development but was subsequently changed to R as a result of community pressure and political ineptitude. More recent efforts have finally succeeded in mapping some of the area as a park and thereby forestalling proposed residential development which would have been adversely impacted by airport operations.

Fairly minimal changes have taken place during the ensuing seven years, such as strip commercial imposed along a portion of Conduit Boulevard. Additional residential construction has almost totally exhausted the supply of vacant land.

Long Island City

This imposing industrial complex, which is an integral part of the East River band, was recognized with a range of manufacturing designations having high bulk, low performance standards at the core and then tapering off with M1-1 serving as a buffer to protect adjacent residential communities. A small residential enclave which has been shrinking appreciably in population and extent over the years was included in the manufacturing district as being a logical area for industrial expansion. The intensity of industrial use, the proliferation of rail, water, rapid transit and arterial facilities all contributed to the basic land use decision regarding this unique and vital area.

Since the initial rezoning effort portions of the area have been modified to permit higher industrial bulk. Scattered vacant land in small parcels remain available and the residential uses are still present with only minor attrition evident.

Ridgewood-Maspeth

The Ridgewood area was zoned residential in recognition of the existing character of the community. Housing is generally good 3-4 story masonry structures and the population was fairly homogeneous. The R5 and R6 are reasonably accurate reflections of existing bulk. Strip zoning was cut back considerably, particularly where the continuity of retail frontage was broken. Existing manufacturing along the railroad lines was recognized. The Maspeth area was generally zoned manufacturing because of the nature and scope of new development, proximity to arterial facilities linking it to the core and the availability of land for industrial development and expansion.

Rockaway

The Rockaway peninsula was characterized by residential development ranging from the low density modern neighborhood of Neponsit to the almost indescribable blight of Arverne. In general, the zoning moved from low-density R2 for Neponsit in the west to increasingly higher bulks and densities proceeding easterly. R6 was applied to the blighted areas east of the amusement center and generally south of the Freeway as a stimulus to public and private investment. Excessive strip

commercial was severely cut back, particularly along the major east-west thoroughfares and adjacent to the boardwalk. The existence of the Rockaway line of the IND served as a basis for the higher bulks east of 116 Street while the beach was the justification for some higher densities south of the Freeway in terms of redevelopment potential.

Decisions on public improvements, particularly housing, have illustrated the fragmented and ad hoc approach of the City and this agency to the Rockaways. Mitchell-Lama projects have been plunked down indiscriminately and higher bulks given on the basis of political and administrative pressures rather than planning considerations. Some private investment has been made in nursing home facilities and there has been some private building notably in one- and two-family houses. Several public housing projects have been completed and others are underway. The Arverne area is presently involved in an early action program under urban renewal. The Airport still presents a major problem since much of the ⁱⁿpeninsula is within the 100 PNDB zone.

The most significant conclusion that can be made about the Rockaways is the need for a focussed, cohesive comprehensive planning approach.

St. Albans-South Jamaica

The South Jamaica community was given a somewhat higher bulk designation than existing development warranted as a stimulus for private and public development to replace some of the most blighted housing in the City.

Moderate densities were applied to some areas more characteristic of R5. Open and intrusive uses were not recognized, leaving them to be terminated under the appropriate provisions. Manufacturing zones were mapped extensively to provide for industrial development to provide job opportunities for the low income and minority group populace.

The St. Albans community was zoned at lower densities more reflective of the one- and two-family character of newer, substantial houses in good condition occupied by a strong middle-class Negro population.

Sunnyside-Woodside

An attempt was made in the Sunnyside-Woodside area to draw a firm if somewhat irregular line of demarcation between conflicting industrial and residential uses which had proliferated under the old designation of unrestricted. The railroad yards and the adjacent industrial districts were given varying bulks depending upon the character and age of existing structures and the availability of vacant land. Higher bulk residential was generally applied to areas immediately served by subway with lower densities as distance increased. High performance manufacturing districts were generally mapped as a buffer between residential and more intensive industrial districts.

Whitestone

The original mapping sought to impose a residential designation on an historic waterfront industrial area. Strong pressures from the Chamber of Commerce forced a reversal of this recommendation so that

a variety of manufacturing uses pre-empting choice waterfront in a prime residential community were recognized with an M1 designation. The remainder of the area was zoned for single-family residences with the exception of a small R3 enclave around the main shopping section and a R4 to reflect the apartment houses construction at Cryder's Point.

Woodhaven, Kew Gardens, Richmond Hill

The most significant feature of this area is that local pressure compelled a change from the R5 proposed for the area on the basis of type and density of existing housing and availability of rapid transit to an R3-1 which was created solely for this area and then applied elsewhere. In the eastern portion of the community a small pocket of R7 was mapped adjacent to some R2 pockets and R5. A fairly extensive M1 District recognized industrial activity around the railroad.

RICHMOND MAPPING

Land use decisions underlying major zoning districts are presented within each Planning District, and are in turn ordered by zoning districts, progressing from lower to higher density residential zones and lower to higher numbered non-residential zones. Each planning district's decision contains a secondary and a detailed analysis.

Summary Planning Area 1

This area is bounded by Kill Van Kull on the north, Clove Road on the east, Staten Island Expressway on the south and Arthur Kill on the west. It includes some of the oldest and most decrepit residential areas, marginal waterfront industry, including crumbling waterfront facilities, and the northern end of the western industrial band of Staten Island.

North of Forest Avenue Planning Area I is quite solidly developed, and zoning designations generally recognize existing patterns. The R5 bounded generally by Holland Avenue on the west, the railroad on the south and John Street on the east was made R5 despite a general R3 pattern to encourage private renewal activities. C4 was mapped to recognize the declining strip pattern on Richmond Avenue and the large modern complex at Richmond and Forest Avenues.

I. Planning Area I - Detailed Description

A. Residential Districts

R3-1 predominantly 1-family development, in good to excellent repair. Recognized because of previous E1 or E2 zoning, little or no vacant land and at the request of a duly constituted community organization.

R3-2's and R4's were applied to recognize existing patterns. The R5 was mapped to encourage private renewal in a blighted area which is R3 and R4 in character.

B. Non-Residential Districts

All C1's and C2's were zoned to recognize existing patterns, and in some cases to permit expansion. Most have high parking requirements to recognize the high auto usage pattern in Staten Island.

The C4 mapped on Richmond Avenue was done to recognize existing uses. Poor circulation and parking had caused a decline here which is more noticeable today. The C4 at Richmond and Forest Avenues is more modern in all respects and is flourishing. (Both will be hit hard by Macy's - A. & S.).

The two major C8 Districts on Clove Road and Forest Avenue recognized concentrations of automotive and light industrial uses.

The M1 Districts recognize existing uses, save for the one large vacant segment near Port Ivory, which was zoned M1 and M2 to accommodate the proposed Empire State Industrial Park.

The M2 zone was designated as part of a pattern to buffer M3 to the west. Part of the Port Ivory area was made M2 to encourage the soap plant to upgrade its performance.

The M3 on the north shore was created to recognize some boat repair. Most of the land contained marginal or abandoned facilities and contains more today. Another M3 to the west recognized chemical and oil processing activities.

Summary Planning Area II

The area is bounded on the north by the Kill Van Kull, on the east by Upper Bay, on the south by the Clove Lakes Expressway and on the west by Clove Road. Its development quality represents the extremes of the Grymes Hill estates, and Stapleton's run-down low density residences and crumbling commerce. Waterfront industry is marginal, suggesting consideration of use succession, including such possibilities as a waterfront civic complex, high-rise residences, and renewal for deep water shipping if back-up space is adequate.

Zoning in almost all cases recognizes existing patterns, save for the Fox Hill R6 and the Hyman Boulevard waterfront R6, mapped to promote high density at desirable locations. The R5 for Sailors Snug Harbor was designed to allow re-use for medium density residential in a desirable

location. With the exception of U.S. Gypsum, industrial activities on the Kill Van Kull were and are marginal.

The Fort Hill and Silver Lakes R6's were mapped to recognize existing high bulk density clusters.

Detailed Discussion

A. Residential Zoning

All R1, R2 and R3-1's were zoned to accord with similar old zoning districts, with R3-1 mapped at the request of the local community organization. All R3-2 and R4 zones recognize the existing pattern. The R5 applied to Snug Harbor was intended to allow medium bulk density development, but was buffered with R3-2.

All R6's recognize an existing pattern, save in Fox Hills, to permit an as yet unbuilt high bulk density complex. The waterfront R6 was mapped in a seemingly desirable section for such a district and to accommodate the Staten Island Chamber of Commerce, which had submitted a long list of zoning suggestions. (Most of these had been refused).

B. Non-Residential Zoning

All C1's and C2 recognized existing uses. The C4 on Castleton Avenue recognized a decrepit strip of C4 type uses, which will be clobbered when Macy's opens.

The St. George C4 contained and contains few major shopping uses, and consists mainly of office activities.

The M1 along Kill Van Kull recognized existing, mostly marginal uses. This is a poor location for industry lacking room for expansion, and poor circulation. This is also true for Stapleton.

The M3-1 on the Kill Van Kull recognized U.S. Gypsum, which is flourishing, and a nuisance to surrounding residences and to traffic. A major re-assessment of land use is in order here eventually.

Summary Planning Area III

This area will not be discussed in detail due to the broad mapping pattern applied to it. It is bounded on the north by the Expressway, the east by Lower Bay, the south by Richmond Creek, Richmond Road and Arden Avenue and the west by Arthur Kill.

It contains most of the large institutions on the Island, Latorette Park the Greenbelt, and the Dongan Hills estates area and the only R1-1 District on the Island, which was mapped at the request of the local organization to recognize the large estates with frontages frequently exceeding 100 feet. All of these activities are located on the high ridge that traverses the Island from north to south. The low portions to the east were zoned R3-2 to recognize an incipient development pattern. To the west, it was mapped largely as a holding operation.

The R5 west of the railroad recognized public housing, and allowed for more medium density, public or private, in its vicinity and near the railroad.

A large C3 was mapped near the Great Kill inlet to recognize a major pleasure boating complex.

The C4-1 was applied to the Astor Estates area on Hylan Boulevard.

Planning Area IV

Summary

This area is bounded generally by Fresh Kills and Richmond Creek on the north, Richmond Road, Amboy Road and Arden Avenue on the east, Raritan Bay on the south and Arthur Kill on the west. It contains most of the vacant land of Staten Island, over 4,000 acres of which are City-owned, and only 20 percent of its total population.

Annadale-Huguenot is also part of Planning Area IV.

R3-2 predominates here and was mapped as a holding action until demand manifested itself. R1's and R3's were mapped for the usual reasons.

All commercial zoning recognizes small existing concentrations. A major C3 district was mapped at Lemon Creek to permit sports boating activities and allows some room for expansion.

The manufacturing zoning in the west is primarily pattern zoning in anticipation of future growth. An exception is the M3-1 District between Richmond Valley Road and the railroad, which contains Nassau Smelting and other heavy activities.

The M3-1 adjacent to Wolfe's Pond Park was created to recognize the S. S. White Company, allegedly the largest manufacturer of dental supplies in the nation.

BRONX MAPPING

Area I - Riverdale

Riverdale was zoned with two major related intentions in mind: to limit the spread of high-rise elevator structures to their locale at the time of zoning, and to protect the excellent estate areas on either side of the Henry Hudson Parkway.

R1-2 was mapped for the estate area and R7 to recognize and delineate existing high bulk. R4 was mapped to recognize the existing pattern and M1 to recognize the Fanny Farmer chocolate factory. This property has since been acquired by Manhattan College and revision of the M1 designation should occur.

Area II - The West Bronx

This area extends from the City line southward to 149th Street excluding the Highbridge area. It represents the high bulk, high density, predominantly physically stable core of The Bronx. Some population succession has taken place in limited areas around the edges, i.e., Southern Boulevard and Bronx Park South, and has moved to within a few blocks to the east of Grand Concourse south of approximately 180th Street.

R8 was mapped along the Concourse as far north as Moshulu Parkway to recognize existing bulks. R7 was mapped on either side of it, for the same reason, and to take maximum advantage of two subway lines serving this area. R7 was also mapped along the length of Bronx Park to maximize its recreational advantages.

The M1 and M2 Districts along the Harlem River were mapped to recognize a scattering of industries. Future cut-back along here to permit both residences built out over these areas, parks and esplanades, providing access to or a view of the river should be considered.

Much heavy commerce and industry has developed along Park and Webster Avenues, with little room for expansion, and an adverse effect upon traffic along these arteries, and on nearby residences. It was designated C8 and M1.

Area II A

The Highbridge area is being discussed separately because its topography separates it physically from the surrounding land mass. The area contains some public housing and private elevator structures, many of which are in an apparent state of decline. The R7 zoning should permit private and public renewal.

Local commerce is concentrated along Ogden Avenue and was recognized by a C1-2 designation.

Area III

The area encompasses the South Bronx. It is characterized by considerable physical blight and social pathology. It also contains the borough's largest concentration of heavy industry.

A large proportion of its residential area is R6, which recognizes or goes slightly beyond recognizing existing bulks, but which may discourage private renewal attempts. Substantial R7 was mapped along the route of the East Side IRT near Westchester Avenue.

M3 areas were mapped along the waterfront both as a desirable pattern and to recognize presumably M3 type uses. It would be interesting to have a performance survey done to ascertain whether the M3 designations in fact are required - here and elsewhere. It may well be that an M2 or M1 designation would fit most uses and encourage better future performance.

Area III A

Hunt's Point consists of an enclave of elevator residential structures surrounded on all sides by light and medium performance industries and by the Produce Market, which was not in existence at the time of rezoning.

Residence then was in a bad state of repair and the assumption was that it had approximately 25 years of useful life left. This may have been over-optimistic by double. Nevertheless an R6 designation was applied. Trucking generated primarily by the Produce Market has had a disastrous effect upon the community and a review of residential zoning is clearly in order.

The surrounding manufacturing area consists of predominantly light industry, with such exceptions as U.S. Gypsum and steel fabricating operations. M3 was mapped somewhat in excess of the then existing pattern as a compromise with pressures exerted by the local industrial association and The Bronx Chamber of Commerce. A review of this may also be in order to determine if it cannot be cut back in part to encourage better performance.

Area IV

Area IV, bounded by the Westchester Creek and the Bronx River, contained at the time of remapping considerable vacant land south of Bruckner Boulevard. Much of this was mapped R6 and R5 to encourage various forms of medium high bulk density public and private housing which has in fact developed although design quality has left much to be desired. Substantial C3 was mapped to permit extensive waterfront recreation uses.

Substantial M1 and M2 was mapped along Westchester Creek to recognize boat building and assorted other manufacturing activities.

Area IV A

This area lies between the New Haven Railroad line, Westchester Creek, Bruckner Boulevard and The Bronx River. It is traversed by the Cross Bronx Expressway, to the north of which lies Parkchester. The area southwest of the Expressway contained R4-type development with substantial tracts of vacant land. To permit medium density development on this land for private and Mitchell-Lama housing, R5 and R6 designations were applied.

Substantial industrial activities have developed along Westchester Creek and were recognized with M1 and M3 designations.

Area V - Southeast Bronx

This area lies south of Pelham Parkway and Pelham Bay Park, between the Hutchinson River Parkway and Eastchester Bay. Its overall density is probably the lowest in The Bronx and portions of it represent the remainder of what was once the "rural" Bronx. Residential quality ranges from the estate area fronting on the Bay, to the cluster of summer bungalows, many of which are occupied year round, also fronting on the Bay.

Typical residential zoning throughout is R4, recognizing the existing pattern. R1-2 was mapped to coincide with the equivalent previous zoning. An R7-1 was mapped near the terminus of the Pelham Bay IRT and Pelham Bay Park to encourage higher density near these major facilities.

Substantial C3 was mapped along Eastchester Bay to permit and encourage a variety of waterfront recreational uses. A major public beach development effort is likely along here in the future.

Area VI

This area includes the northeast Bronx from Pelham Parkway north to the City line, and from the Bronx River Parkway to Long Island Sound.

It is a predominantly low and medium density area, with R7 mapped to recognize existing bulks along Bronx Park East, and to maximize the availability of substantial open recreation lands. The entire area is predominantly stable, and has shown comparatively little private residential activity. However, there has been a substantial expansion of public housing north of Pelham Parkway, and some row housing in the extreme northeast that is being occupied by minority persons. Of considerable future interest is Co-Op City, which is being built in a C7 District.

Considerable C8 was mapped along Boston Post Road primarily to recognize healthy groupings of automotive uses. A C4 was mapped between Gun Hill Road and Eastchester Avenue on the Post Road to recognize a major strip

retail - office grouping in a large M1 District was created to recognize a large complex of light manufacturing. It included substantial vacant lands to permit expansion. A small M3-1 was designated at the north end of the area to recognize a grouping of petroleum processing uses.

Area VI A

This area is bounded by Pelham Parkway, the Hutchinson River Parkway, East Tremont Avenue, and Bronx Park. It includes excellent single-family development fronting on Pelham Parkway, the higher density lower quality area in the vicinity of Morris Park Avenue, and the Pelham Parkway high density area. The latter consists of a large group of elevator apartment houses in good repair at the time of zoning. An R7 designation was applied to recognize this area, and to permit expansion in the locale of the IRT lines on Dyre Avenue and White Plains Road. The former two areas were recognized by R3-2 and R5 designations. M1 was applied to two railroad yards on the New Haven line to permit use of their vacant lands for industry. A C4 was mapped on White Plains Road to recognize the retail complex serving the Pelham Parkway R7.

Area VI B

City Island was zoned after much agony, disproportionate to its size, to recognize the existing restaurants along City Island Avenue which constitute a regional resource, while protecting the generally sound and stable residential area immediately adjacent. A C1 and C2 pattern was mapped on City Island Avenue, but was cut back to recognize only healthy groupings. C3 was restricted to the northern end due to local misapprehension. M1 was mapped to recognize boat building and repair activities some of which were on the wane.

BROOKLYN MAPPING

Most populous of the five boroughs, Brooklyn provides homes for one-third of the City's inhabitants (1957). (Excluding New York it is second to Chicago of all U.S. cities (1950)). Many of its residents live on land presently zoned for non-residential uses.

Objectives of Rezoning

- a. Make available sufficient land for industry and manufacturing and provide good residential conditions for the many people living near large manufacturing employment centers.
- b. Facilitate gradual re-ordering of present undesirable mixtures of land use and building types; to protect predominantly developed one-and two-family residential areas against encroachment of tall apartment buildings and excessive retail store frontage; and generally bring about an improved pattern of land use.

Prior Zoning

- a. Approximately one quarter (26.4 percent) of the borough was zoned "unrestricted" or "business", despite the fact that the character of many of the areas was predominantly residential. This applied particularly to communities such as Williamsburg, Greenpoint, Bushwick and Bedford-Stuyvesant. The areas where such lack of protection of residential development existed are generally Brooklyn's most blighted areas.

- b. Excessive strip business and retail zoning had the effect of excessive business failures due to disadvantageous location. It encouraged the slow encroachment of manufacturing uses (conversions of vacant stores to garment manufacturing, knitting mills, etc.) along retail streets, and it had a generally blighting influence on surrounding residential areas.
- c. It led to spot zoning in answer to demands by special interest groups. It was used to legalize existing manufacturing plants despite the fact that such plants often are located in solidly residential areas.
- d. The Downtown Brooklyn "Business" zone (extending from Flatbush Avenue to Atlantic Avenue) permitted activities that are detrimental to the CBD function, such as heavy storage and manufacturing.
- e. Permissible bulk was excessive.

Proposed Zoning

- a. R1, R2, the two districts presently restricted to detached one-family houses, are placed in corresponding districts.
- b. R3, R4, the undeveloped areas far from public transportation and not served by community facilities, are placed in the lowest bulk category: Bay Ridge, Midwood-Marine Park, Flatlands-Canarsie, Dycker Beach Park area of Bensonhurst, Highland Park Area of East New York.
- c. R5 mapped in stable areas of mixed development (two, three, and multi-story structures) where new construction is not anticipated: areas of Bensonhurst, East New York, Washington Cemetery area of Boro Park, Greenwood Cemetery area of Park Slope.

- d. R6 maximum F.A.R. 2.4. Most widely mapped zone in the Borough; permits six-story development with adequate open space. The areas so zoned are adequately served by mass transit and are generally nearer to the Downtown section of Brooklyn. Park Slope, Bedford-Stuyvesant, Bushwick, Eastern Parkway-Crown Heights, East Flatbush-Brownsville, Williamsburg, Greenpoint; sections of: Red Hook, East New York, Flatbush, Sunset Park, Bay Ridge, Coney Island, Bensonhurst and Midwood.
- e. R7 mapped in areas of predominantly six-story structures and high coverage to permit buildings up to twelve floors but with considerably lower coverage. Mapped along Ocean Parkway, Ocean Avenue, Empire Boulevard-Crown Heights, and small waterfront oriented areas in Bay Ridge and Manhattan Beach.
- f. R8 the highest residential bulk mapped in Brooklyn: Brooklyn Heights, Eastern Parkway (Prospect Park).

Commercial Zones

- a. C1, C2 frontage is mapped along streets in residential areas having substantial business activities and in all areas where residential building activity justifies the expectation that an increase in population will be followed by a corresponding increase in retail activity. C1 Districts are mapped to a depth of 150 feet wherever possible. Parking requirements are low in these districts except in the outlying areas of Midwood-Marine Park, Sheepshead Bay and Flatlands-Canarsie sections, where medium parking requirements apply.

- b. C5 Districts are mapped in locations along the Borough's shoreline having substantial commercial waterfront activity and locations where contemplated shore development will make commercial waterfront use desirable.
- c. C4 recognizes active secondary shopping centers, mapped with adequate expansion room and accessory parking. The Borough has an abundance of these areas (24). Their relative proximity to each other and the prevailing and anticipated shopping habits indicate a low parking requirement for all but a few of these centers. Notable exceptions are the large Flatbush-Church Avenue area, and five centers in the more outlying sections of the Borough. A special case is the Rockaway Avenue area which is mapped for greater bulk, typical for its function as a furniture center.
- d. C5 F.A.R. 10 is mapped in downtown Brooklyn, the principal shopping area of the Borough.
- e. C6 at lesser bulk (F.A.R. 6) than the core; it is mapped at the periphery of the downtown Brooklyn shopping area.
- f. C7 is mapped for the commercial amusement area of Coney Island and was held tightly to the healthier core area.
- g. C8 mapped principally where heavy commercial uses occur along major trucking arteries, at important traffic intersections adjacent to major and secondary shopping centers and in appropriate places to serve residential areas.

Manufacturing

Manufacturing areas are found throughout the Borough; manufacturing districts are mapped in accordance with this pattern. Special care was taken to protect residential areas adjacent to manufacturing complexes by either designating them to the most restrictive industrial category or by establishing buffer strips of commercial uses (C2). Abnoxious manufacturing uses are mapped away from residences, chiefly along Newton Creek and the waterfront areas of Red Hook, Bay Ridge and Sunset Park. Three areas are outstanding in terms of factory construction. They are: the Newton Creek area, New Lots area and the Flatlands Industrial area (Bay Ridge Division of the Long Island Rail Road). A generous portion of vacant land was included in these zones to permit further expansion.

Brooklyn Heights

Zoning follows fairly closely the existing land use. R6 was mapped along the Promenade to Hicks Street, and R7 east of Hicks. The R6 was intended to preserve the historic buildings, and at the same time give access to breezes and not block the view for taller in-lying buildings. R7 was chosen to accommodste Cadman Plaza housing, then in planning, and to give redevelopment incentive to the deteriorating housing to the north, between the housing development and Hicks Street.

The Fulton Terminal piers were zoned M2. An M1 buffer was not deemed necessary because of the natural topographic separation between residence and industry.

Brooklyn Central Business District

A largely fictitious firm boundary line was drawn between the northern end of the CBD (C5) and the more local retail uses of Brooklyn Heights (along Montague Street).

The General Central Commercial District (C6) wraps around the Restricted Central Commercial District (C5) in the east and to the south.

The endeavor was made to strengthen and concentrate the CBD by preventing its spread south beyond Atlantic Avenue. The south side of Atlantic Avenue was zoned as Local Service east of Clinton Street. The C6 area extends from Clinton to the Long Island Rail Road Terminal, which is in an M1 District. Flatbush Avenue is in the C6 area to a point south of Lafayette Avenue. From there towards the bridges Flatbush Avenue is largely in C8 and M1 zones in recognition of the land use along this much frequented traffic artery.

Navy Yard - Ft. Greene

High Performance Manufacturing (M1) uses under the bridges were mapped as a buffer against the northern end of residential Brooklyn Heights, and the Clinton Hill-Ft. Greene residential areas. Two low-performance (M3) enclaves were mapped along the East River, east and west of the then active Navy Yard. On Myrtle Avenue and Fulton Street, and in the area bounded by them, only the healthiest retail areas were designated by C1 or C2.

Williamsburg

The major task was to unscramble the mixture of residential and non-residential uses aggravated by heavy trucking. It was resolved by

buffering the residential areas from the heavy manufacturing and warehousing uses along the waterfront by a hierarchical system of buffers (M1, M2).

The residential finger that points westward in the vicinity of South 3rd Street, an area surrounded on three sides by industry, represents in miniature the pattern of the entire peninsula that is formed by the East River and Newtown Creek.

Greenpoint

The residential area is surrounded by industry on three sides. This area was further to be cut by the extension of Bushwick Expressway along Oakland Street. There was some thought that the residential area should be abandoned to the encroaching industry, and denied capital funds for schools, etc. It was found to be an area of older people in old housing, however well maintained, and with community spirit and cohesiveness. Recommended retention of the residential core area as far north as Dupont Street, with the high performance manufacturing buffer surrounding it was over-ruled and the entire area north of Greenpoint Avenue was zoned industrially - making housing a non-conforming use. In later negotiations, the community prevailed and the area was mapped residentially.

A unique situation exists in Greenpoint, where a large park (McCarren Park containing the Auto Trade High School) is completely surrounded by industry. Since the industry surrounding it showed no chinks, it was mapped reflecting existing land use.

Red Hook, South Brooklyn, Carroll Park

Red Hook also was considered by some to contain residential areas that are not viable, and their recommendation was to zone the entire area for industry.

Aside from the fact that there seemed to be no need for adding such a large tract of land to industrial use - it was concluded that Red Hook Houses and its Annex were on a site singularly endowed with residential amenities. The proximity to the water, a unique view of the Manhattan skyline, and cool southwesterly breezes outweighed the nearness of industry along the waterfront. It was found that in terms of noise, glare, vibration and even traffic, industrial activity in the area was surprisingly compatible with residence, with the possible exception of a multi-story paint factory to the northeast of the housing project.

The isolation of Red Hook is caused by the approaches to the Brooklyn Battery Tunnel (on grade directly north of residential Red Hook), which slices the residential area in two, with South Brooklyn to the north and Red Hook to the south. Although this was not done through zoning - because too radical at the time - there remains the possibility of rejoining the two residential areas, viz.: the parkway rises to imposing heights as it crosses over Gowanus Creek. It therefore is not a barrier for the northeasterly portion of Red Hook. Industry along the Creek was anchored by the now demolished but then hopelessly outmoded Brooklyn Union Gas Co. plant; the remaining non-residential uses along the western shore of the Creek are marginal (sand and gravel, coal open storage and the like).

The westbank of Gowanus Creek can be considered as a prime residential site. It offers excellent private and public transportation links with Manhattan, and if developed with imagination the Creek could be a very attractive asset to the development. Residential development would thus be continuous from Gowanus Bay to Atlantic Avenue.

South Brooklyn suffered another amputation, albeit with less serious consequences than the one described. The traditional, and highly specialized shopping area was severed from its residential hinterland by the Brooklyn-Queens Expressway. Fortunately the expressway runs in a cut and several bridges lead over it. In the long run, however, a more accessible shopping area will have to be planned.

Park Slope, Gowanus, Prospect

There is a great deal of overspill across Fourth Avenue of residential uses into the industrial area and vice-versa. Fourth Avenue from Baltic to 40th Street - a distance of 2 1/2 miles - was designated as the boundary between industry to the west and residence to the east. With the strong terminating provisions then in the proposed Zoning Resolution, the eventual unscrambling of the mixed uses was foreseen.

For four to five blocks an exception to the 4th Avenue boundaries had to be made in the vicinity of Greenwood Cemetery where modern factories had sprung up at that time.

The field survey revealed that the non-residential area along the northern extremities of Gowanus Canal was beginning to show signs of weakness.

The large Borden Milk Co. plant was to move out, and there were plans to fill that portion of the Canal. There seemed to be an opportunity for urban renewal, which would have eliminated the M1 District as far south as 4th Street, but this proposal was considered premature.

In the Park Slope section, strong manufacturing uses, some as large as one city block, were mapped residentially, even though they antedated the residential development by several decades. The good quality of housing and the proximity to Prospect Park were the determining factor.

Sunset Park, Bush Terminal

Third Avenue from 40th Street to the Army Supply Base is the boundary between M1, M2, M3 to the west and R6 to the east. The non-conforming uses on either side of this line are less numerous than in the Park Slope, Gowanus section of Brooklyn. An exception was made near the Base, where housing in very good condition adjoins the Base at Second Avenue. The Supply Base being at much lower elevation was found to be no abridgement to residential amenities.

The Sunset section demonstrated most clearly the effects of exceptional amounts of strip commercial zoning. Reconversions of stores to residence were in evidence. Identification of viable retail uses was a major concern within this R6 District.

Bedford-Stuyvesant

Here also the ill-effects of unrestrained strip commercial zoning was much in evidence. It was cut back severely leaving still a great number of local shopping districts. The problem on Fulton Street and on Broadway was the location of clearly defined C4 and C8 Districts, and the cutting back of commercial frontage where the present usage warranted it. Where it was not possible to eliminate the commercial zone altogether it was made more restrictive (C1 or C2). At the northern perimeter of the area, south of Myrtle Avenue and west of Marcy Houses the industrial intrusion was not recognized. The area was proposed to be zoned R6 but this decision was later overturned.

Bushwick

The non-residential intrusions: garment manufacture, knitting mills in converted stores, lumber and storage, etc., along the right-of-way of the former Evergreen Branch of the Long Island Rail Road were zoned R6. Retail frontage was cut back to the most advantageous locations. On Myrtle Avenue two general commercial districts (C4) were carved out. A high performance M1 District is bounded by Bushwick to the east along the Bay Ridge Division of the Long Island Rail Road and to the west near Flushing Avenue.

Crown Heights

Two pockets of single-family housing in the vicinity of Carroll Street were zoned R1. In a northerly direction residential bulk rises gradually via R4 to R6. To the south Crown Heights is bounded by a 2 to 3 block-wide strip of R7, generally along Empire Boulevard, extending from Bedford Avenue to Lincoln Terrace Park.

A thin strip of M1 along Atlantic Avenue separates Crown Heights from that artery and Bedford-Stuyvesant beyond. In anticipation of an expressway along Atlantic Avenue a more massive and more extensive M1 zone was laid out and incorporated in the later stages of the zoning map. Several general service districts (C8) at Bedford Avenue and strips of C8 and M1 on East New York Avenue establish the western and eastern boundaries of Crown Heights.

Brownsville, East Flatbush

Brownsville is bounded to the east and south by a strip M1 zone along the Bay Ridge Division of the Long Island Rail Road, and the various rapid transit right-of-ways; to the west C8 and more restrictive local retail zones along East 98th Street; to the north by strip C8 and M1 zones along Eastern Parkway and East New York Avenue. Nearby is the Pitkin Avenue shopping district (C4), extending over a distance of almost half a mile on Pitkin Avenue and a quarter mile on Rockaway Avenue. Holland Steel provides the nucleus of an eight block M1 zone in the southeast corner of Brownsville. The area contains an over abundance of public housing and is zoned R6, with the exception of a swath south of Linden Boulevard which is R5.

The residential density in East Flatbush is typically R4, increasing in a northerly direction to R5 and R6 (Kings County Hospital) with an R7 zone extending from Prospect Park South as far as New York Avenue. The peripheral areas to the south, remote from public transportation are in an R3 zone.

East New York, Highland Park, New Lots

The East New York area suffers from non-residential intrusions from the north (Atlantic Avenue) and from the west. Certain major groupings of non-residential uses had to be zoned M1 (Schaefer Brewery). Scattered manufacturing uses, even when relatively new, were zoned residentially.

The route of the Jamaica El posed problems; a narrow strip of M1 and C8 zones acknowledges viable existing land use. The patchwork of M1 and C8 district along Atlantic Avenue was an attempt to sort out the great mixture of land uses along this thoroughfare. East New York is basically R5, except for the westerly portion (R6). Highland Park was zoned R4, although a few blocks north of Jamaica Avenue might qualify for R3.

The New Lots manufacturing area was at the time of the survey the liveliest growth area in the Borough. It was zoned M1 with ample space for expansion.

Bay Ridge

The northern boundary of Bay Ridge is the Bay Ridge Division of the Long Island Rail Road along which M1 has been zoned. The older communities along Upper Bay and near Dyker Beach Park consist chiefly of one- and two-family homes (R3). R6 densities occur along Fourth Avenue. The newer high-rise apartment buildings on Shore Road Park were zoned R7.

Borough Park

This neighborhood is sliced through by strips of non-residential development along McDonald Avenue (zoned M1), and by the largely automotive commercial uses along Coney Island Avenue (C8). Ocean Avenue on the other hand is a prestige area (R7 and R6). R5 is the typical residential bulk, but pockets

of single-family detached homes can also be found (R1) in the Borough Park section of Brooklyn. Where the Brighton Line runs in open cut, tree shaded cul-de-sacs create a pleasant residential environment (R1, R3, R4).

Bensonhurst

Predominantly R5, with R6 along Bay Parkway and R4 east of 24th Avenue to Stillwell Avenue. Solid commercial uses along 86th Street: C4, C8 and C1, C2. Extensive row of marginal commercial (some store front manufacturing) uses were rigorously cut back to residence districts.

The land lying between Shore Parkway and the pierhead line, east of Bensonhurst Park, was zoned largely for manufacturing with waterfront recreational zones at either end.

Midwood

Commercial zones along McDonald Avenue to the west have C8 predominating. Kings Highway to the south is mapped General Commercial (C4), Flatbush Avenue has Local Retail and Local Service Districts to the east with a small compact M1(around Avenue L and Avenue M) in the center. This is the former motion picture center ante-dating Hollywood and now largely television oriented. Generally south of Brooklyn College is a 35-block R2 area with R6 to the west and R4 to the east of the single-family detached residence district.

Flatbush

It contains the Flatbush Avenue General Commercial District, second in importance only to Downtown Brooklyn Local Retail and Service districts along Rogers and Nostrand Avenues. R7 is mapped R7 along Ocean Avenue from

Brooklyn College to Prospect Park. R6 is the predominant residential characteristic, with R4 east toward Utica Avenue. Compact and adjoining General Commercial (C4) and General Service Districts (C8) are mapped on Flatbush Avenue in the vicinity of Brooklyn College.

Flatlands Canarsie

This is the part of Brooklyn that still contains vacant land. The predominant residential zone is R3. This designation was used in part to encourage garden apartment development and to thwart high-rise apartment construction in areas remote from public transportation. The actual development in evidence was the two-family row house, largely on very recently filled land. The area is bounded to the north by a broad swath of M1 along the Bay Ridge division of the Long Island Rail Road, containing the site of the Flatland Industrial Park. This band continues eastward, swinging south to Flatlands Avenue and terminates at the New Lots industrial area. In addition there are several M districts, some fairly large, in the area designating incinerators or a sewage treatment site. The only manufacturing area on Jamaica Bay is at Mill Basin. Adjacent to it expensive housing (R3) was beginning to be erected. Already conflict between the industry and residence was evident as in atomic waste disposal.

The predominant residential district is R3, and only the core of Canarsie, about eight blocks on either side of Rockaway Parkway is R4.

Sheepshead Bay

The predominant residential district is R4 with R5 to the north, and strip R6 along Ocean Avenue. Gerritsen Beach on Shell Bank Creek, the Venice of Brooklyn, is R3. The Waterfront Recreation District (C3) on the Bay reflects the character of the area. The General Commercial District lies at

the confluence of Sheepshead Bay Road and Jerome Avenue. The C8 General Service District adjoins it on East 17th Street.

Coney Island

The Manhattan Beach Naval Station was zoned R3 in the hope that garden apartment development would eventually replace the barracks.

The basic policy regarding the amusement area was 1) to confine it within a compact (C7) district between West 8th Street and West 21st Street from the boardwalk to 100 feet north of Surf Avenue, and 2) to create a large park adjacent to the east by zoning residential the area between West 8 and West 5, north of Surf Avenue. This wedge of land plus the existing and mapped Seaside Park, with the small Waterfront Recreation District to the east would constitute a gross area of 44 acres.

The basic residential bulk is R6, falling off towards Sea Gate to R5, R4 and R3. From Ocean Parkway to Manhattan Beach, R7 was mapped near the boardwalk. Along the meandering portion of Coney Island Creek nonresidential uses that fit into M1 or M2 districts still persist. They had to be mapped. They are the continuation of an industrial area north of Shore Parkway (Stillwell Avenue), adjoining the Transit Authority Train Yards and Repair Shop. Within the yards there are sizeable tracts of land which the Authority leases to commercial truck gardeners. Vegetables that are associated with Italian cooking are grown, and sold to retailers. In framing the Zoning Resolution some thought was given to the inclusion of an agricultural district but the idea was later dropped.

MANHATTAN MAPPING

Greenwich Village

There are three General Commercial Districts: at Sheridan Square, Eighth Street and Sixth Avenue, and on 3rd Street south of Washington Square.

The residential area is bounded to the west by C8 and M1 districts west of Greenwich Street, and to the east by M1 at Mercer Street. The Canal-Houston Street industrial area (M1-5) extends north of Houston to approximately 8th Street. A great deal of thought was given to joining Greenwich Village with the area now known as the East Village. However, the non-residential uses along Broadway and Lafayette were strong, and indications of a trend towards residence were scant. Thus, the industrial wedge between Mercer Street and the Bowery separates Greenwich Village from the East Village area.

Residential bulk was held to R7 as a conservation measure, with R9 on Fifth Avenue only. R8 is in the northeast portion, around University Place to 11th Street. The 14th Street area was mapped C6-1, permitting residential development at R8, extending to 3rd Avenue and along the Bowery, including Cooper Union as far as Houston Street. The South Village area was carved out of the surrounding M1, extending south to Spring Street between West Broadway and Varick. Strong pressure convinced the Commission to approve a change of the lot occupying the southwest corner of 8th Street and Broadway from M1 and R8 to R9. A super-luxury apartment now towers there.

Murray Hill, Upper East Side

In the original mapping little attention was paid to the preservation of enclaves of unique housing, e.g., in the Murray Hill section or the embassy row. After much additional field investigation the interior blocks on Murray Hill were zoned R7 as a preservation measure. In this part of Manhattan, R7 is not a sufficient incentive for new development to occur. Similarly, the interior blocks of the Upper East Side were remapped R8. However, while in the original mapping only the blocks between 5th and Madison Avenues were put in the highest bulk category, to 96th Street, all the avenues on the Upper East Side were subsequently given the highest residential bulk designation. This was one of the chief bargaining concessions that had to be made to the real estate lobby to win acceptance of the Zoning Resolution.

Hell's Kitchen

The mapping of this area caused considerable headache primarily because community spokesmen were divided whether the area should remain residential or not. It was eventually decided to extend the 42nd Street C6-1 district north to 45th Street between 8th and 9th Avenues. Enclaves of M1 for the 54th Street television center, and C6 at 49th Street to cover Madison Square Garden are interspersed in the predominantly R8 residential area between 8th and 10th Avenues.

MANHATTAN MAPPING

The mapping of Manhattan represented in some ways the most difficult task of all the boroughs. For one thing the Island is densely built up with structures of varying age and condition. For another the concentration and diversity of activities is nowhere more extreme, and finally it is in Manhattan where the most entrenched and powerful forces of the status quo existed and where the subtle and pervading inter-relationships between real estate and politics manifested itself most. The obvious result was compromise in many basic areas but with some concessions gained by staff efforts in other areas.

The residential mapping of Manhattan distinguished between the areas of investment building such as Yorkville and the East Side, the special character of Greenwich Village, the enclaves of Murray Hill, Beekman Place, Turtle Bay and the more amorphous and non-Descript sections of the borough. As a rule Upper East Side and the Yorkville area were zoned for the highest bulks and densities, particularly along the avenue frontages, with some attempt made to provide lower bulk levels in the block interiors in order to provide light, air and ventilation, as well as the preservation of town house and embassy rows. For the most part, R9 was mapped along avenues and R8 in the block interiors. Subsequently the R10 District was created at the same bulk level previously applied to R9, mapped in place of the old R9, and a new R9 category interspersed between the R8 and R10 in the district structure and then applied to various areas. Other changes then followed with the general pattern being that of raising bulk levels one step.

In the Village an interim zoning change was made under the old Resolution to reduce permissible bulks so that the grace period would not result in wholesale land assemblages, evictions and demolitions and construction of high-rise luxury buildings. While some construction took place, the essential character of the Village has been preserved. The original proposal for R7 was modified to R6 in many sections and has further stimulated rehabilitation rather than redevelopment. Ironically enough, one of the present significant threats to the zoning pattern of the Village comes from the proposal by the West Village group for an archaic housing pattern to be built at what would require R8 zoning.

Turtle Bay, Tudor City, Murray Hill and other such enclaves were recognized by residential designations despite their relative isolation in the Central Business District.

South of 110 Street two policies were followed with respect to residential bulk and density. The Lower East Side was zoned R7 except for the previously approved Seward Park Urban Renewal Area which was made R8. The philosophy underlying the R7 designation was that R7 represented the highest density district in which amenities and facilities could be provided adequately and economically for middle-income families. Implicit in this philosophy was the idea that where urban renewal write-down was used, subsidy should be provided in such a manner that desirable density levels would be possible. Experience has demonstrated that the housing equation, particularly as applied by HRB, has sacrificed density and other planning considerations in favor of economics as the prime determinant. The outmoded concept of the highest and best use has been applied indiscriminately in many areas,

and R8 has been forced in some cases and embraced in others by the Commission as in Seward Park Extension, Brooklyn Bridge Southwest, and Bellevue South. In other cases, HRB proposes to use the subterfuge of C5 and C6 designations to build at R8 or higher densities where planning considerations and Commission decisions have previously indicated R7 as being desirable.

On the west side of Manhattan the residential zoning sought to preserve much of the Chelsea and Clinton communities from the inroads of commercial and industrial expansion while at the same time attempting to provide for some westward movement of the Central Business District. North of 59 Street higher bulks were generally mapped along avenue frontages and along the major cross streets. An attempt was made to preserve the interior of blocks with lower densities but this effort was not generally successful. The notable departure from the basic policies is of course the West Side Urban Renewal Area where a series of changes over the years has vitiated much of the original intent.

North of 110 Street the general policy was that R7 was the most appropriate density and bulk for Harlem and East Harlem, while R8 characterized the area west of Broadway at least as far north as the George Washington Bridge. Again the basic philosophy was that R7 represented the last district which could provide residential amenities of space, scale, light and air to low- and middle-income families, particularly those in publicly-aided housing, as much of East Harlem and Harlem were or were expected to be. Political pressure, the intricacies of financing and the web of sponsor - HRB interaction has resulted in a number of Mitchell-Lama projects going to R8. Various studies done by the Department of City Planning and by

Dr. Louis Winnick when Director of Research and Planning for HRB have conclusively demonstrated that changes in density in Mitchell-Lama housing have little or no appreciable effect on rental or carrying charges where low- or even moderately-priced land is involved. The major impetus for higher density therefore comes from the desire of the developer to maximize his profit by having a greater number of units and from the operating agency to increase the housing stock regardless of marketability, as well as other considerations less important but more formidable than planning.

One basic policy inherent in the zoning of Manhattan was that automobile congestion south of 110 Street was of such gravity that steps should be taken to discourage car ownership and usage. Accordingly the parking requirement south of 110 Street was set for R7 Districts at a level 10 percent lower than for comparable districts to the north and elsewhere in the City.

In the area of central commercial zoning two basic policies were enunciated. First, the extent of F.A.R. 15 Districts was constrained for the reasons given in the section on land demand. Second, the prime quality of Fifth Avenue, Park Avenue and environs was reflected in the more restricted C5 designation while the secondary areas were generally recognized with the more flexible C6 designation. Within the residential areas, local commerce service and commercial and more community oriented shopping areas were recognized with C1, C2, and C4 designations, respectively. Some minimal attempts were made to cut back on excessive strip zoning. Greenwich Village became the major battleground over use and bulk proposals, with the

issues eventually becoming obscured with citizen participation devolving into histrionic acrimony. In the less volatile and staid areas of the City, minor adjustments were made to reflect individual situations. Since the rezoning effort, additional changes have been made, usually on the basis of what has variously been defended as reasonableness, pragmatism, practicality, flexibility, or that the change "will not result in any appreciable harm."

The industrial zoning of Manhattan recognized the continuing decline in manufacturing activities and the corresponding increases in service and related activities. Accordingly, some areas were zoned C6 rather than M to permit a transition to commercial uses as well as housing where market forces and governmental decision regarded such latter uses as appropriate. In addition, bulk levels were generally held down in the belief that the high-rise industrial mill-type building was a thing of the past and that few if any future industrial buildings would seek to surpass floor area ratios of 5.0 except in special cases which could be judged on their individual merits.

Both industrial and central business commercial districts, south of 110 Street, were exempted from any parking requirements on the theory that such requirement would further aggravate the already intolerable traffic congestion. A subsequent development, however, has been the voluntary provision of parking by many office buildings far in excess of direct need, with the spaces actually being used commercially to circumvent the public parking garage provisions of the Zoning Resolution. A comprehensive parking amendment, designed to plug existing loopholes,

